8 (2) SOV/112-58-3-4509

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1958, Nr 3, p 159 (USSR)

AUTHOR: Fremke, A. V., Semenov, Ye. I., and Zhilin, V. N.

TITLE: Amplitude-Type Cyclic Telemeter (Amplitudnaya tsiklicheskaya teleizmeritel'naya sistema)

PERIODICAL: Izv. Leningr. elektrotekhn. in-ta, 1957, Nr 29, pp 45-51

ABSTRACT: A multichannel telemeter is described that has time division of channels and amplitude modulation in each of them. Block diagrams of the systems with electro-mechanical and electron primary elements are presented, as well as simplified circuit diagrams of individual units. Basic error of the system (without the primary-element error) is $\pm$ 2 to 2½%.

V. A. K.

Card 1/1 USCOMM-DC-61,057

[redacted], A. V., Prof., Dean, Leningrad Electrical Engineering Institute im. V. I. Ul'yanov-Lenin, Leningrad -

"Data-transformers for automatized digital measuring devices" (Section 1)

report submitted for Measurement and Automation, Scientific Society for (Hungarian) Intl. Measurements Conference - Budapest, Hungary, 24-30 Nov 58

FREMKE, A.V., doktor tekhn.nauk, prof.

Theory of the operation of electromagnetic instruments under pulsed conditions. Izv. vys. ucheb. zav.; pri. no.1:36-40 '58. (MIRA 11:5)

1.Leningradskiy elektrotekhnicheskiy institut im. V.I. Ul'yanova (Lenina).

(Electric instruments)

FRENKE, A. V.

SOV/144-58-9-18/18

AUTHOR: Gikis, A. F., Candidate of Technical Sciences, Docent

TITLE: Inter-University Scientific Conference on Electric Measuring Instruments and Technical Means of Automation (Mezhvuzovskaya nauchnaya konferentsiya po elektroizmeritel'nym priboram i tekhnicheskim sredstvam avtomatiki)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Elektromekhanika, 1958, Nr 9, pp 130-135 (USSR)

ABSTRACT: The conference was held at the Leningradskiy elektrotekhnicheskiy institut imeni V. I. Ul'yanova (Lenina) (Leningrad Electro-technical Institute imeni V. I. Ul'yanov (Lenin)) on November 11-15, 1958. The representatives of eleven higher teaching establishments and three research institutes participated and a large number of specialists of various industrial undertakings were present.
Docent B. M. Smolov (Leningrad Electro-Technical Institute) read the paper "Non-linear electronic voltage transformers with a numerical output", in which he considered two methods of transforming voltages into a numerical code.
V. P. Shuridin (Ural Polytechnical Institute imeni S. M. Kirov) presented the paper "New counters based on polarized relays". These do not suffer from the

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disadvantage of existing counters, namely, that the results are lost if the current supply is accidentally interrupted.
Professor A. V. Frenke and Docent Ye. M. Dushin (Leningrad Electro-technical Institute) presented the paper "Metering transducers for automatic instruments with discrete types of recording".
Candidate of Technical Sciences V. B. Ushakov and P. M. Kopey-Gora (Scientific Research Institute for Computers) presented the paper "Computing equipment for automatic centralized control of production parameters".
Candidate of Technical Sciences V. B. Ushakov presented the paper "Certain trends in the development of analogue computers and of computing devices intended for use in industry".

7(7) PHASE I BOOK EXPLOIATION SOV/1709

Fremke, Andrey Vladimirovich

Teleizmereniya (Telemetering) Moscow, Gosenergoizdat, 1958. 304 p. 25,000 copies printed.

Ed.: Ye. M. Dushin; Tech. Ed.: A.A. Zabrodina.

PURPOSE: This is a textbook for students taking a course in telemetering at power- and electrical-engineering vuzes and specializing in automatic control, telemechanics and electrical measurements. The book was approved as a textbook by the Ministry of Higher Education, USSR. It may also be useful to engineering and technical personnel working with remote control equipment.

COVERAGE: The author discusses basic problems in telemetering and describes the instruments, circuits, and characteristics, of remote control systems. Communication channels and radio telemetering are

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not covered in the text. For proper understanding of the material, a knowledge of general engineering and electrical engineering subjects as well as applied electronics and pulse technique is a prerequisite. Section 52 of Chapter 9 was written by Ye. I. Semenov and Section 53 of Chapter 9 by V.I. Stepanov. The author thanks Professor V.O. Artyunov for providing some of the material discussed in the book. He also thanks V.V. Sidel'nikov, L.S. Shugayev and V.D. Ambrosovich for reviewing the manuscript. There are 48 references of which 36 are Soviet, 6 English and 6 German.

TABLE OF CONTENTS:

Telemetering

Telemetering

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6-6-59

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AUTHOR: Fremke, A.V., Doctor of Technical Sciences, Professor

TITLE: Working Theory of an Electro-Magnetic Device During Pulse Operation (Teoriya raboty magnito-elektricheskogo pribora v impul'snom rezhime)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy - Priborostroyeniye, 1958, Nr 1, pp 36-40 (USSR)

ABSTRACT: The paper discusses the theory for the movement of the mobile part of an electro-magnetic device, connected to a circuit with square current pulses. The problem was solved by the method of successive integration of differential equations, which describe the movement of a mobile part of the device during the pulses and intervals. Equations were worked out for 3 cases with varying degree of damping (β):1) $\beta > 1$; 2) $\beta = 1$; 3) $\beta < 1$. The example shown here indicates that the perceptible vibration of the mobile part (δ = approx. 0.5%) occurs at a pulse frequency of 10 cycles and pulse series m = 0.5, even with critical

Working Theory of an Electro-Magnetic Device During Pulse Operation

damping of the device ($\beta = 1$) and a circular oscillating frequency of the mobile part of $\omega_0 = 2.27$ 1/sec. The formulae show that the vibration amplitude of the mobile part of the device can be reduced by a decrease of ω_0 or by a considerable increase of β. There are 2 graphs, 1 circuit diagram and 4 Soviet references.

ASSOCIATION: Leningradskiy electrotekhnicheskiy institut imeni V.I. Ulyanova (Lenin). (Leningrad Electrical Engineering Institute imeni V.I.Ulyanov (Lenin))

KORNDORF, Sergey Ferdinandovich; FREMKE, A.V., prof., doktor tekhn.nauk, retsenzent; STRIZHEVSKIY, I.V., red.; AKIMOVA, A.G., red.izd-va; EL'KIND, V.D., tekhn.red.

[Principles of electric measurement, electronic engineering and electronic automatic control in instrument manufacture] Osnovy elektroizmerenii, elektronnoi tekhniki i elektroavtomatiki v priborostroenii. Moskva, Gos.nauchno-tekhn.izd-vo mashinostr. lit-ry, 1959. 462 p. (MIRA 12:10)
(Electric measurements) (Automatic control)

FRANKEL, A.V.

AUTHOR: Leningrad, V. I., Engineer 307/115-59-3-13/15

TITLE: The Inter-university Scientific Conference on Electrical Measuring Instruments and on the Technical Means of Automation (Mezhvuzovskaya nauchnaya konferentsiya po elektroizmeritel'nym priboram i tekhnicheskim sredstvam avtomatiki)

PERIODICAL: Priborostroyeniye, 1959, Nr 3, pp 30-31 (USSR)

ABSTRACT: This Conference was held at the Leningradskiy elektrotekhnicheskiy institut im. V. I. Ul'yanova (Lenina) (Leningrad Institute of Electrical Engineering imeni V. I. Ul'yanov (Lenin)) in November 1958. It was attended by more than 500 representatives of universities, scientific research institutes, of the OKB, the SKB (Special Design Office), of industries and other organizations. More than 30 lectures were delivered in the meetings of this Conference. In opening the conference S. F. Borodichev underlined the outstanding importance of automation and of measuring technique for the development of national economy. K. N. Shumilovskiy in his lecture reported on The Trends in the Development of Methods of Radioactive Control of Production Data" and outlined the extensive

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possibilities of using radioactive methods in such control. Ye. G. Shrader and Z. A. Spektor reported on a new method of measuring heavy direct currents with the help of the nuclear magnetic resonance. M. A. Rozenblat investigated problems of the application of magnetic amplifiers in automation and in measuring technique. A. V. Fateyev reported on the present-day state of the prospects of automatic control technique. Ya. Z. Tsypkin investigated some peculiar features of and the prospects offered by automatic pulse systems. The lecture by M. G. Boldyrev dealt with problems of stability of discrete automatic systems. V. B. Ushakov discussed the main trends in the development of mathematical analog computers and of computers designed for industrial use. The report by V. S. Kabyshkin dealt with an electronic analog correlator for the calculation of correlation functions in the investigation of winds in the ionosphere. N. I. Turgenev reported on the most important methods, which guarantee both an active and passive freedom from disturbances in

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discrete selective systems. Th. V. Rozenwasser discussed problems of averaging, differentiation, and balancing of time-dependent functions which can be represented by electric signals. V. P. Shuvikin investigated new computing devices with polarized relays. A. V. Frank and Ye. N. Rubin reported on instrument transformers for automatic instruments with automatic recording. V. B. Tanakov and I. M. Kopy-Gora reported on a computer for the automatic centralized control of production specifications. E. N. Pelley discussed fundamental problems of the theory of automatic measuring instruments with an inverse conversion for the measurement of non-electric quantities. Ye. I. Tsaylakh dealt with problems of the construction of automatic d. c. potentiometers with high accuracy. D. I. Rabiy discussed a high-precision automatic d. c. bridge for digital computations. The participants in the Congress listed below discussed the following subjects (which, however, are not given by the exact wording of the titles): V. A. Ivanov: The planning of measuring elements for

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The Inter-university Scientific Conference on Electrical Measuring Instruments and on the Technical Means of Automation SOV/119-59-3-15/15

accurate automatic quotient-type meters in digital computations.
R. R. Kharchenko: Methods of determining the dynamic errors
of a magnetic oscilloscope by simulation. P. P. Ornatskiy:
Problems in measuring electric quantities at extremely low
frequencies by electrical indicating instruments of various
systems. L. F. Kulikovskiy: Novel types of a. c. compensators.
A. S. Rozenkrants: Automatic bridges and a. c. compensators
suited for the control of the parameters of condensers in
series production. L. I. Stolov: Some characteristics of
midget induction motors which can be used in measuring
technique and automation. D. A. Borodayev: Ultrasonic
pressure- and liquid level gages. Yu. A. Skripnik: The
circuitry of a phase-sensitive commutation indicator for
a. c. semi-equilibrium bridges. N. P. Suvid: The application
of instruments with magnetic bridges, which permit a
considerable simplification of the design of the apparatus
and the circuitry used in the measurement of non-electric
quantities. V. A. Ferents: Method of increasing the
sensitivity of oxygen gas analyzers. P. V. Novitskiy:

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Design of apparatus for measuring vibration quantities.
V. V. Pasynkov: Main types of non-linear semiconductor
resistors and possibilities of their application to
circuitry in automation and measuring technique. G. N.
Novopashennyy: Development of measuring amplifiers with
semiconductor triodes. Ya. V. Novosel'tsev, N. A. Smirnov,
Ye. Ye. Afanas'yev, Ye. P. Ugryumov: Precision semiconductor
frequency meter operating according to the pulse-counting
principle. P. G. Nikitin and A. Bezukladnikov: Methods of
measuring the magnetic field strength by means of bismuth
resistors and transducers operating on the Hall effect
principle. A resolution was adopted by the closing plenary
meeting of the Conference, which indicates ways of
improving and coordinating scientific research work in the
field of automation, electric measuring- and computing
technique.

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9 (7), 9 (6)

AUTHORS: Dushin, Ye. M., Candidate of Technical Sciences, Fremke, A. V., Doctor of Technical Sciences SOV/119-59-8-3/15

TITLE: Measurement Transformers with Unified Signal

PERIODICAL: Priborostroyeniye, 1959, Nr 8, pp 7-11 (USSR)

ABSTRACT: In the introduction the basic mode of operation of electric measuring systems is briefly described, and the demands which must be made on such circuits are enumerated: 1. Independent of the quantity to be measured the initial signals of the measurement transformer should be uniform. 2. A linear characteristic of measurement transformers is required. 3. It must be possible to connect them to automatic circuits. 4. The construction must be suited for use in masses. Formula (1) expresses the error of the signal in %, and possible causes for the signal error are given. The following quantities may be used as signals: 1. The voltage or the amperage of a direct current. 2. The frequency of alternating current. 3. Direct current pulses. In the case of the latter, both the pulse amplitude, the duration of the pulses, the number of pulses or combination of different kind of pulses may be used. In the present paper only static compensation-transformers are investigated. Measurement transformers are subdivided

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into two groups: Generator- and paramter-measurement transformers. The former need no feeding because for the production of their e.m.f. they use up energy of the quantity to be measured. In the case of parameter transformers an arbitrary parameter of the electric circuit is changed, and for such a transformer a current source is necessary. As examples, the schemes of a generator transformer (Fig 1) and of a parameter transformer (Fig 2) are shown, their mode of operation is discussed, and the formulas for calculation are derived. As examples, the static compensation transformers worked out at the elektroizmeritel'nyy laboratoriya Leningradskogo elektromekhanicheskogo instituta imeni V. I. Ul'yanova (Lenina) (Electro-measuring Laboratory of the Leningrad Electromechanical Institute imeni V. I. Ul'yanov (Lenin)) for thermocouples and resistance thermometers are described. The thermocouples belong to the group of generator transformers, and figure 3 shows the wiring scheme of the here described transformer. The latter consists of the thermocouple proper, a three-step amplifier, a phase-sensitive rectifier, and for the elimination of nonlinearities it has an electronic function transformer. For the compensation of the nonlinearity of the thermocouple characteristic caused by temperature variations at

the cold junctions a compensation bridge is used. In conclusion, a resistance thermometer, the wiring scheme of which is shown by figure 5, is dealt with. By means of a shunt, the sensitivity of this transformer may be varied within a wide range. For the amplification of the signals a three-step alternating current amplifier, to which a vibro-transformer is connected, is used. There are 6 figures and 3 Soviet references.

BAYDA, Leonid Il'ich; DOBROTVORSKIY, Nikolay Stepanovich; DUSHIN, Yevgeniy Mikhaylovich; MOKIYENKO, Dobroslava Nikolayevna; PREOBRAZHENSKIY Aleksey Alekseyevich; PCHELINSKAYA, Sof'ya Nikodimovna; STAROSEL'TSEVA, Yelena Aleksandrovna; FREMKE, Andrey Vladimirovich, doktor tekhn. nauk, prof.; ORSHANSKIY, D.L.; PREOBRAZHENSKIY, A.A., red.; SOBOLEVA, Ye.M., tekhn.red.

[Electrical measurements; a general course] Elektricheskie izmereniia; obshchii kurs. Izd.3., perer. i dop. [By] L.I. Baida i dr. Moskva, Gosenergoizdat, 1963. 428 p. (MIRA 17:3)

FREMKE, A.V.; MOKIYENKO, D.N.; SHVEGZHDA, O.S.

Static converter of power to a d.c. voltage with voltage stabilizing components using a piecewise linear parabola approximation. Izv. vys. ucheb. zav.; prib. 7 no.4:28-31 '64 (MIRA 18:1)

1. Leningradskiy elektrotekhnicheskiy institut imeni V.I. Ul'yanova (Lenina). Rekomendovana kafedroy elektroizmeritel'noy tekhniki.

ACC NR. AP5006631

Fromke, A. V., Mokiyenko, D. N., Kuz'min, V. Ya

varistor-type active-3-phase-power

SOURCE: IVUZ. Priborostroyeniye, v. 8, no. 1, 1965, 19-25

TOPIC TAGS: three phase / dc converter

ABSTRACT: The active 3-phase power is measured by the well-known two-wattmeter method; four bridge-type semiconductor rectifiers are connected to ... voltage and current transformers, the bridge ... to ... squarers whose outputs are combined ... current (0--5 ma) in the final output circuit. A principal ... converter is explained, and the a/v characteristics of the varistors ... as components of the overall converter ... described. The transient time is ... the output

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ACCESSION NR: AP5006631

voltage-type and current-type circuits, respectively. Orig. art. has: 4 figures, 7 formulas, and 1 table.

ASSOCIATION: Leningradskiy elektrotekhnicheskiy institut im. V. I. Lenina (Leningrad Electrotechnical Institute)

SUBMITTED: 13Jan64 ENCL: 00 SUB CODE: EE

NO REF SOV: 007 OTHER: 000

llc

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BOGORODITSKIY, N.P.; VINOKUROV, V.I.; YERMOLIN, N.P.; LEBEDEV, A.A.; POTSAR, A.A.; TERENIN, A.N.; FREMKE, A.V.

Professor Boris Pavlovich Kozyrev, 1895- ; on his 70th birthday.
Elektrichestvo no.9:89 S '65. (MIRA 18:10)

L 22426-66 EWT(d)/EWP(k)/EWP(l)
ACC NR: AT6013622 SOURCE CODE: UR/0105/65/000/009/0089/0089

AUTHOR: Bogoroditskiy, N. P.; Vinokurov, V. I.; Yermolin, N. P.; Lebedev, A. A.; Potsar, A. A.; Terenin, A. N.; Fremke, A. V.

ORG: none

TITLE: Honoring the 70th birthday of Professor Boris Pavlovich Kozyrev

SOURCE: Elektrichestvo, no. 9, 1965, 89

TOPIC TAGS: academic personnel, electric engineering personnel, IR research, spectroscopy

ABSTRACT: On 1 August 1965 was the 70th birthday of Honored Activist of Science and Engineering RSFSR, Laureate of the State Prize, Dr. Techn. Sci., Professor Boris Pavlovich Kozyrev. Professor Kozyrev's life-work has been inseparably connected since 1921 with the Leningrad Electrical Engineering Institute imeni V. I. Ul'yanov (Lenin), where he rose from the post of assistant to that of full professor - head of the Chair of Principles of Electrovacuum Engineering and Scientific Head of the Problems Laboratory of Radiation Electronics and Vacuum Engineering. Boris Pavlovich Kozyrev has made a series of important scientific contributions to vacuum engineering, optical electronics, and infrared engineering. In 1950 he was awarded the State Prize for the development and introduction of photoptical amplification of weak signals, which contributed to the expansion of research into

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spectroscopy and infrared engineering in the Soviet Union. The Problems Laboratory which he heads is one of the major Soviet centers of research into thermal radiation sensors which are successfully applied in spectroscopy, atmospheric optics, actinometry, limnology, and studies of the processes of photosynthesis. Professor Kozyrev has at various times been a member of or consultant to scientific and technical councils in different research institutes. He is the author of approximately 150 works and inventions. In addition he is an excellent educator, author of guides and textbooks, faculty dean, the mentor of a large number of graduate students, and a civic-minded person who takes an active part in political and social life. He is the holder of many medals, orders, and other awards. Orig. art. has: 1 figure. [JPRS]

SUB CODE: 09, 20 / SUBM DATE: none

FREMKE, B.N., inzh.

Remote control in electric centralization equipment. Avtom., telem. i sviaz' 2 no.9:4-8 S '58. (MIRA 11:10)
(Railroads--Signaling) (Remote control)

FREMKE, B.N.

Standardized scheme for laying and fanning out routes from roundhouses. Avtom.telem. i sviaz' 3 no.1:18-19 Ja '59. (MIRA 12:1)

1. Rukovoditel' gruppy Giprotranssignalsvyazi.
(Railroads--Signaling--Block system)

FREMKE, B.N., inzh.

Special features of switching circuits fed from the main line. Avtom., telem. i sviaz' 3 no.3:16 Mr '59. (MIRA 12:5)
(Railroads--Switching)

FREMKE, B.N., inzh. (Leningrad).

New possibilities for electric interlocking. Zhel. dor. transp. 41 no.1:67-69 Ja '59. (MIRA 12:1)
(Railroads--Signaling--Interlocking systems)

FREMKE, B.N., inzh.

Circuit for consecutive switching of route-relay interlocking switches with feed from the principal power line. Avtom., telem. i sviaz' 4 no.3:8-9 Mr '60. (MIRA 13:7)

1. Giprotranssignalsvyaz'.
(Railroads--Signaling--Interlocking systems)

LOZHKIN, O.V.; PERFILOV, N.A.; RIMSKIY-KORSAKOV, A.A.; FREMLIN, Dzh., professor

Nuclear splitting in a photographic emulsion produced by 930 Mev protons. Zhur.eksp.i teor.fiz. 38 no.5:1388-1398 My '60. (MIRA 13:7)

1. Radiyevyy institut Akademii nauk SSSR. 2. Birmingamskiy universitet, Angliya (for Fremlin).

(Protons) (Nuclear fission)

FRIMMER, Jan., Mudr.

On the methods for the dissemination of health-educational work in the field. Cesk. zdravot. 7 no.8:431-433 S '59

1. Krajsky osvetovy lekar, Nitra.
(HEALTH EDUCATION)

FREMROVA, B.

Production and distribution of drugs. Zdravot. rev. 25:9, 20 Sept 50, p. 260-2

CLML 20, 3, March 1951

PHASE I BOOK EXPLOITATION CZECH/5373

Fremunt, Marcel, Vladimír Krejný, and Miroslav Zdařil

Konstrukce přípravků. Díl 2: Přípravky upínací (Construction of Jigs and Fixtures. pt. 2: Work-Holding Jigs and Fixtures) Prague, SNTL, 1960. 319 p. 2,000 copies printed.

Reviewer: Václav Krčmář; Chief Ed.: Ota Kraus; Resp. Ed.: Bohuslav Johan.

PURPOSE: This book is intended for fixture designers and process engineers. It may also be useful to students at mechanical-engineering high schools and schools of higher education.

COVERAGE: The book, Volume 2 of a three-volume edition, contains many examples of the constructions of manual, mechanized, and automatic fixtures for a variety of machine tools. Constructions with various work-holding elements and means, including pneumatic, hydraulic, hydroplastic (doughy plastics), and automatic devices, are presented. Attention is given to constructions of positioning units and to machining methods when using these devices in lot and mass production. Six books are recommended for those who wish to make a more intensive study of fixture design. Part I was written by Miroslaw Zdařil; Vladimír Krejný, wrote Part II. The remainder of the book was written by Marcel Fremunt. No personalities are mentioned. There are no references.

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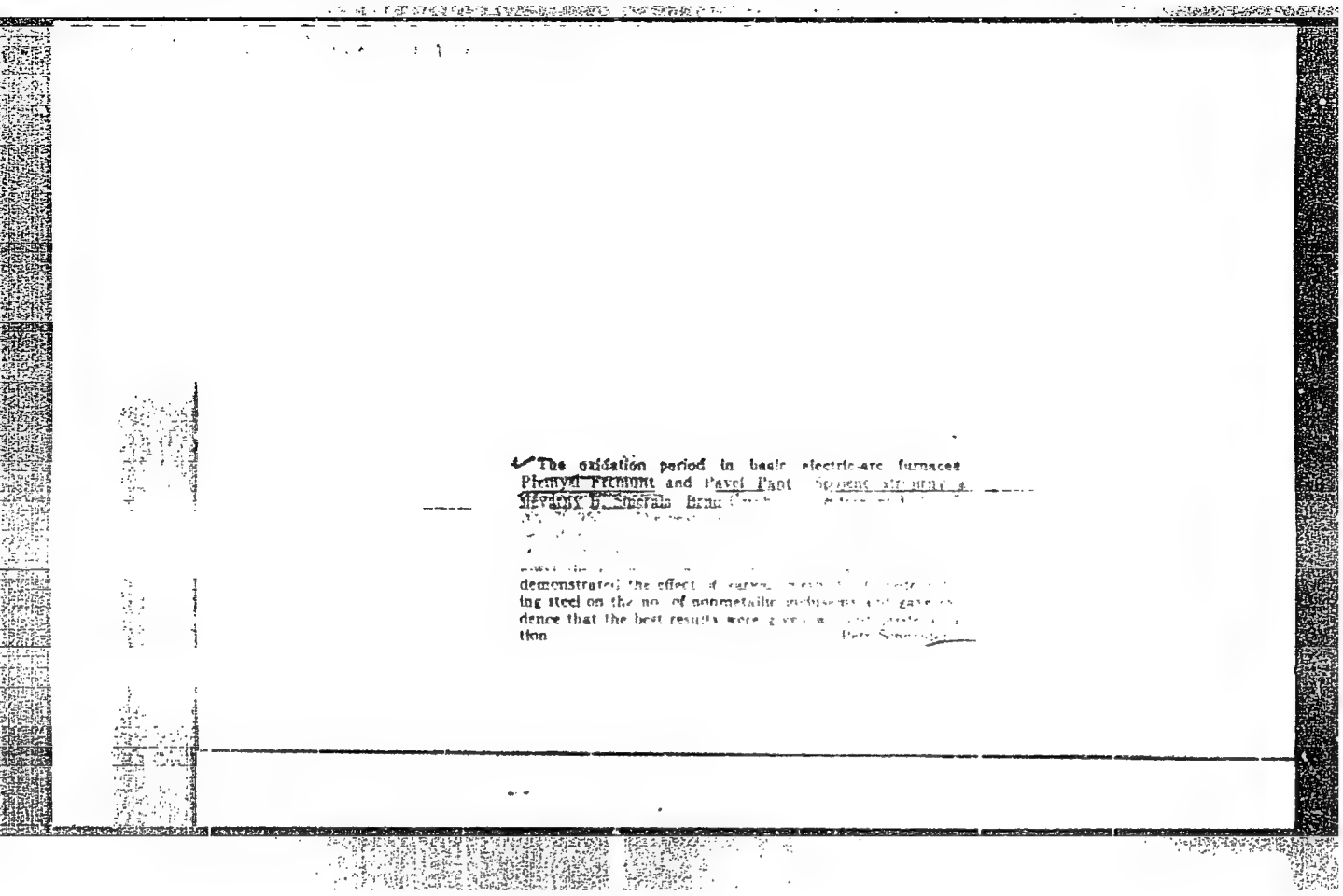

The oxidation period in basic electric-arc furnaces
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demonstrated the effect
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Z/036/60/000/001/001/002
A205/A126

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AUTHOR: Fremund, Přemysl, and Lorenc, Adolf

TITLE: Brittleness of cast-steel with 13% chromium

PERIODICAL: Slévárenství, no. 1, 1960, 5 - 8

TEXT: The author investigates the influence of heat treatment on the notch-bar strength of cast steel with 13% Cr, an effect, which is not yet fully accounted for, but is of utmost importance for quality improvement of turbine blades, cast from such steel. A. Lorenc and J. Bezrouk [Ref. 5: Slévárenství 6 (1958), no. 2, 51 - 53] found that the notch-bar strength according to "ČSN 42 2906" standard increases, when steel is quenched at tempering temperature, and F. Mařan [Ref. 4: Slévárenství 7 (1959), no. 5, 175 - 179] states that quenching of castings, especially at tempering temperatures, has the greatest effect on the notch-bar strength. Slow cooling reduces the strength of larger castings. Some authors attribute the decrease in notch strength to the brittleness originating at 475°C, but the majority of authors make the tempering brittleness responsible for the notch strength resulting after final heat treatment. Lorenc and Bezrouk made tests with samples, which were kept for a relatively short time at austenitizing

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Brittleness of cast-steel with 13% chromium

temperatures and were then tempered for a short time at low temperatures. Since the heat treatment and the chemical composition of castings changed since that time, new tests were performed to determine, whether conclusions, made by the aforementioned authors, are still valid. The aim of the first test series was to determine the tempering time and temperature which effect the maximum decrease in notch-bar strength. Prior to re-tempering, the notch-bar strength ranged between 4.5 and 8.0 kg/cm^2 (average value 5.9 kg/cm^2 at a hardness of 200 HB), and only those samples were re-tempered, which showed a minimum deviation from the average value. Additional tests were performed with the aim to determine an eventual decrease of notch-bar strength at different heat treatment. The next tests were performed with the aim to determine whether elimination of homogenization and re-heating of samples effects a decrease of notch-bar strength. Some authors claim that tempering brittleness can be influenced by suitable heat treatment after forming. L. V. Smirnov [Ref. 10: Trudy IFM AN SSSR, Uralskiy filial, vypusk 18, 36 - 57] postulates that plastic deformation at high temperatures and low reduction is limited to boundaries of austenite grains. The crystal lattice of boundary layers is thus disturbed, which effects a change in the character of phases causing temper brittleness. Since air cooling was sofar used, additional tests were performed to

Brittleness of cast-steel with 13% chromium

Z/036/60/000/001/001/002
A205/A126

determin, whether notch-bar strength is decreasing when samples are water quenched after tempering. In conclusion, the author summarizes the test results as follows: (1) Reheating of samples, water quenched after tempering results in reduced notch-bar strength, caused by temper brittleness. (2) This reduced notch-bar strength of water-quenched samples was observed in all cases, regardless of previous heat treatment. (3) Reheating of samples, air cooled after tempering, did not cause a substantial decrease in notch-bar strength, as long as the reheating temperature did not exceed the temperature of initial tempering (A_{c1}). (4) Since the notch-bar strength decreases without increase of hardness, it is not influenced by brittleness at 475°C. (5) Quenching at tempering temperatures increases the notch-bar strength of the described steel types. (6) Exceeding of point A_{c1} (750°C) effects an increase of macro- and microhardness and decreases the notch-bar strength. There are 3 figures, 5 tables, and 12 references: 10 Soviet-bloc and 2 non-Soviet-bloc.

ASSOCIATION: Šmeralovy závody, Brno

SUBMITTED: October 14, 1959

Card 3/3

FREMUNT, Premysl, inz. CSc.; STRANSKY, Karel, inz.

Use of thermodynamics in steel metallurgy. Hut listy 18 no.8:588-594 Ag '63.

1. Smeralovy zavody, n.p., Brno.

FREMUNT, Premysl

Physical conditions for precipitation of blowholes from iron melt. Slevarenstvi 12 no.8:302-307 Ag '64

1. Smeralovy zavody, Brno.

FRĘNCEL, I.

Presence of an alkaloid in the roots of the globe-flower Trollius europaeus L. Acta Pol. pharm. 22 no.1:95-96 '65.

CHOUNSI, D.Garris [Chauncey, D.Harris]; FRENCH, R.A.; ROGACHEVA, E.V. [translator]; STANOVA, T.A. [translator]

Foreign scientists' statements on Soviet geography. Izv. AN SSSR. Ser. geog. no.4:106-109 Jl-Ag '62. (MIRA 16:5)
(Geography)

FRENCIJU, Josif

Adapter for tomography. Tuberkuloza, Beogr. 12 no.4:465-468 '60.

1. Bolnica za plucne bolesti, Bela Crkva (upravnik: dr J.Frenciju)
(RADIOGRAPHY equip & supply)

POLAND

BORKOWSKI, Boguslaw and FRENCLOWA, Irena, Chair of Pharmacognosis (Katedra Farmakognozji), AM [Akademia Medyczna, Medical Academy] in Poznan (Director: Prof. Dr. B. BORKOWSKI)

"Chromatographic Analysis and Preparation of Harminic Alkaloids from Plants."

Warsaw, Farmacja Polska, Vol 19, No 6, 25 Mar 63, pp 106-109.

Abstract: Authors review the literature and tabulate the 13 identified natural harminic alkaloids and their sources, as well as the chromatogoraphy conditions used in their isolation and identification by the various authors. Included are previous findings of the author (Brokowski) and coworkers on these alkaloids in three plants of the Zygophyllaceae family (Peganum, Zygophyllum, and Tribulus) now extended to the fourth (Guajacum officinale L.). Of the 23 references, about 5 each are Polish, Western, and Russian, and the others in German.

1/1

FRENCLOWA, Irena

Clarification of the origin of "ciorantine". Acta Pol. pharm. 21 no.2:145-147 '64.

1. Z Ogrodu Farmakognostycznego Akademii Medycznej w Poznaniu (Kierownik: prof. dr. B. Borkowski).

FRENCZY, M.

FRENCZY, M. Preparing the carbonic manganese ores of Urkut by a chemical method. p. 1.

Vol. 8, No. 1, 1956
KOZLEMENYEI
SCIENCE
Budapest, Hungary

So: East Eurppean Accession, Vol. 6, No. 2, Feb. 1957

FREND, G.M., kand.geologo-mineralogicheskikh nauk

Role of effusive volcanism in the endogenous metallogeny of southern Dzhungaria. Vest.AN Kazakh.SSR 16 no.11:43-45 N '60. (MIRA 13:12)
(Dzhungarian Ala-Tau--Ore deposits)

RUSAKOV, M.P.; FREND, G.M.

Group of Permian volcanic structures in the Katu Mountains (Dzungarian Ala-Tau). Izv. AN SSSR. Ser. geol. 25 no. 3:41-56 Mr '60. (MIRA 13:12)

1. Institut geologii AN KazSSR, Alma-Ata.
(Katu Mountains--Volcanoes)

FRENDO, J.; KOJ, A.; ZGLICZYNSKI, J.M.

Conversion of sulfur compounds in human blood platelets. Taurine synthesis. Acta biochim.polon. 6 no.3: 277-285 '59.

1. Zaklad Chemii Fizjologicznej A.M. w Krakowie. Kierownik Zakladu: prof.dr. B. Skarzynski.
(BILE ACIDS AND SALTS blood)
(BLOOD PLATELETS chem.)

HEMATOLOGY

CZECHOSLOVAKIA/POLAND-UDC616.153.963.43:616.155.16(:546.21)-0732.731

FRENDO, J.; KOMARKOVA, A.; Institute of Physiological Chemistry, Cracow, Head Dr W. OSTROWSKI [Original version not given]; Central Bioch. L. Fac. Gen. Med. Ch. Univ. (U. Bioch. L. F.V.L. KU), Prague.

"Capacity of Hemoglobin to Bind Oxygen in Sulfhemoglobinemia."

Prague, Casopis Lekaru Ceskych, Vol 105, No 33, 19 Aug 66, pp 881 - 882

Abstract [Authors' English summary modified]: In blood containing sulfhemoglobin the hemoglobin dissociation curve (expressed by Hill's constant) is shifted to the right. The shift is directly proportional to the content of sulfhemoglobin. 1 Figure, 2 Tables, no references.

1/1

KOJ, A.; FRENDO, J.

The activity of cysteine desulphhydrase and rhodanase in animal tissues. Acta biochim. pol. 9 no.4:373-379 '62.

1. Department of Physiological Chemistry, Medical School, Krakow.
(LYASES) (TRANSFERASES)

POLAND

J. BORYSIEWICZ, J. FRENCO and A. KOJ, Department of Physiological Chemistry, Head, W. SKARZYNSKI, MD, and Department of Medical Microbiology, Medical Academy, Krakow [original version not given]

"Cysteine Desulphydrase and Rhodanase Activity in the Developing Chick Embryo."

Krakow, Folia Biologica, Vol 10, No 3-4, 1962; pp 169-177.

Abstract [English article]: The two enzymes appeared in the 4-day embryo and increased to adult levels in the third week of development. Cysteine desulfhydrase through the formation of H_2S may induce rhodanase formation. Table, 3 diagrams, 2 Polish and 16 Western refs.

1/1

FRENDO, J.; KOJ, A.

Studies on the mechanism of the appearance of sulfhemoglobinemia. Pol. med. wewnet. 32 no.7:867-868 '62.

1. Z Zakladu Chemii Fizjologicznej AM w Krakowie, Kierownik: Prof. dr B. Skarzynski.

(METHEMOGLOBINEMIA)

POLAND

FRENDO, J., KOJ, A., and GORNIAK, A., Department of Physiological Chemistry (Zaklad Chemii Fizjologicznej) (Director: Prof. Dr. B. SKARZYNSKI) and the Second Surgical Clinic (II Klinika Chirurgiczna) (Director: Prof. Dr. J. OSZACKI), both of the AM [Akademia Medyczna, Medical Academy] in Krakow

"Activity of Cysteine-desulfhydrase and of Rhodanase in Human Tissues."

Warsaw-Krakow, Przeglad Lekarski, Vol 19, Ser II, No 2, 28 Feb 63, pp 141-143.

Abstract: [Authors' English summary modified] Investigations disclosed that the activity of the two enzymes connected with sulphur transformation is parallel and is highest in the liver, kidneys, gastric mucosa, muscles, salivary glands, and pancreas. Authors discuss the importance of hydrogen sulphide generation in the tissues in reference to the mechanism in which sulfurhemoglobinemia originates. Of the 14 cited references, 4 are Polish and the others Western.

1/1

KOJ, A.

Surname (in caps); Given Names

Country: Poland

Academic Degrees: [not given]

Affiliation: Department of Physiological Chemistry, School of Medicine (Zaklad Chemii Fizjologicznej Akademii Medycznej Krakow), Krakow; Director: Prof. B. SKARZYNSKI, dr med

Source: Warsaw, Przeglad Lekarski, No 5, 1961, p. 217.

Data: "Metabolism of Sulphur Compounds in Human Thrombocytes: "Cysteine." (Abstract).

Co-authors:

FRENDO, J., Department of Physiological Chemistry, School of Medicine, Krakow; Director: Prof. B. SKARZYNSKI, dr med.

ZOLICZYNSKI, J., Department of Physiological Chemistry, School of Medicine, Krakow; Director: Prof. B. SKARZYNSKI, dr med.

FREINER, E.

Rukovodstvo farmokologii dlya veterinarnykh vrachei, Sel'khozizd, 1931, 543 pp.

FRENGL, Z.

1

CZSR

FRENGL, Z.

2nd Stomatological Clinic of the Faculty of General Medicine of Charles University (II. stomatologicka klinika fakulty vseobecneho lekarstvi KU) Prague, director: Prof. Dr. Fr. Urban, DrSc

Prague, Ceskoslovenska Stomatologie, No 2, 1963, pp 104-109.

"Clinical Diagnosis of Precancerous Conditions and Incipient Cancer of the Lip"

CZECHOSLOVAKIA

FRENGL, Z., MD.

Second Stomatological Clinic of the Faculty of General Medicine of Charles University (II. stomatologicka klinika fak. vseob. lek. KU), Prague

Prague, Prakticky lekar, No 5, 1963, pp 180-182

"Clinical Notes on Precancerous and Early Stages of Carcinoma RTU."

HRUBÝ, Zdenek,

SURNAME, Given Names

(2)

Country: Czechoslovakia

Academic Degrees: MD

Affiliation: Second Stomatological Clinic (II. stomatologicka klinika), KU /Karlova Universita; Charles University/; Director: Docent Frantisek URBAN, MD

Source: Prague, Prakticke Zubni Lekarstvi, Vol IX, No 5, June 1961, pp 137-140.

Data: "Occurence of Foreign Bodies in Jaws and Tissues Around Jaws."

78

GPO 981643

FRENGL, Z.

Problems of recurring lip cancer. Cesk. stomat. 66 no.1: 24-27 Ja '66.

Multiple follicular cysts in the jaws. Ibid.:43-47

1. II. stomatologicka klinika fakulty vseobecneho lekarstvi Karlovy University v Praze (prednosta prof. dr. F. Urban, DrSc.).

FRENK, A.M. (Tiraspol')

How the principle of Huygens was developed. Vop.ist.est. i tekh. no.11:51-54 '61. (MIRA 14:11)
(Light, Wave theory of)

FRANKFURT, U.I.; FRENK, A.M.

Outline of the development of optics of moving bodies. Trudy Inst. ist. est. i tekh. 43:3-49 '61. (MIRA 15:1)
(Optics)

FRANKFURT, Usher Ioynovich; FRENK, Aleksandr Moiseyevich; NIKIFOROVSKIY, V.A., red. izd-va; SINKINA, G.S., tekhn. red.

[Christiaan Huygens, 1629-1695]Khristian Giuigens, 1629-1695. Moskva, Izd-vo Akad. nauk SSSR, 1962. 325 p. (MIRA 15:10)
(Huygens, Christiaan, 1629-1695)

FRENK, A.M.; SPASSKIY, B.I., prof.

From the history of optics in the 17th century (Huygens' optics). Ist. i metod. est. nauk no.3:192-196 '65.
(MIRA 18:12)

KANIVETS, I.I., kandidat sel'skokhozyaystvennykh nauk; NIKITYUK, M.I.; FRENK, D., redaktor; MANDEL'BAUM, M., tekhnicheskiy redaktor

[Soil zones of Moldavia and their agricultural characteristics] Pochvennye raiony Moldavskoi SSR i ikh sel'skokhoziaistvennye osobennosti. Kishinev, Gos. izd-vo Moldavii, 1955. 207 p.
(Moldavia--Soils) (MLRA 10:2)

FRENK, I.Kh., inzh.

Full use of the possibilities of Universal Decimal Classification.
NTI no.9:36 '65. (MIRA 19:1)

ROTAR', F.T.; FRENK, D., red.; TEL'PIS, V., tekhn.red.

[Natural conditions and moisture conservation in Moldavia; from the observations of an agriculturist over a period of many years] Prirodnye usloviia Moldavii i bor'ba za vlagu; iz mnogoletnikh nabliudenii agronoma. Kishinev, Gos.izd-vo "Karta Moldoveniaske," 1959. 148 p. (MIRA 13:9)
(Moldavia--Meteorology, Agricultural)

FRENK, I.Kh., inzh.

Correlate and take advantage of the experience with Universal Decimal Classification. NTI no.6:22-23 '63. (MIRA 17:1)

1. Otdel fondov Nauchno-issledovatel'skogo instituta tekhniko-ekonomicheskikh issledovaniy radioelektronike (NIITEIR).

FRANK, L., inzh.

Reorganizing the highway administration in Uzbekistan. Avt.dor. 22 no.3:24-25 Mr '59. (MIRA 12:4)
(Uzbekistan--Roads)

FREIK, I., inzh.

Technical specifications for planning rural roads. Avt.dor. 23 no.1:8-9 Ja '60. (MIRA 13:5)
(Roads--Design)

FRANK, L., inzh.

Road maintenance worker Abdumutalib Khalikov. Avt. dor. no.10:23 O '64. (MIRA 17:12)

FRENK, L., inzh.

Road construction in Northern Uzbekistan. Avt. dor. 27 no.8:27-28 Ag '64. (MIRA 17:12)

FRENK, L., inzh.

Roads in collective farms and state farms in Uzbekistan are constructed according to designs. Avt.dor. 27 no.12:25 D '64.
(MIRA 18:2)

FRENK, L., inzh.

Construction of local roads according to simplified specifications. Avt. dor. 28 no.4:15 Ap '65. (MIRA 18:5)

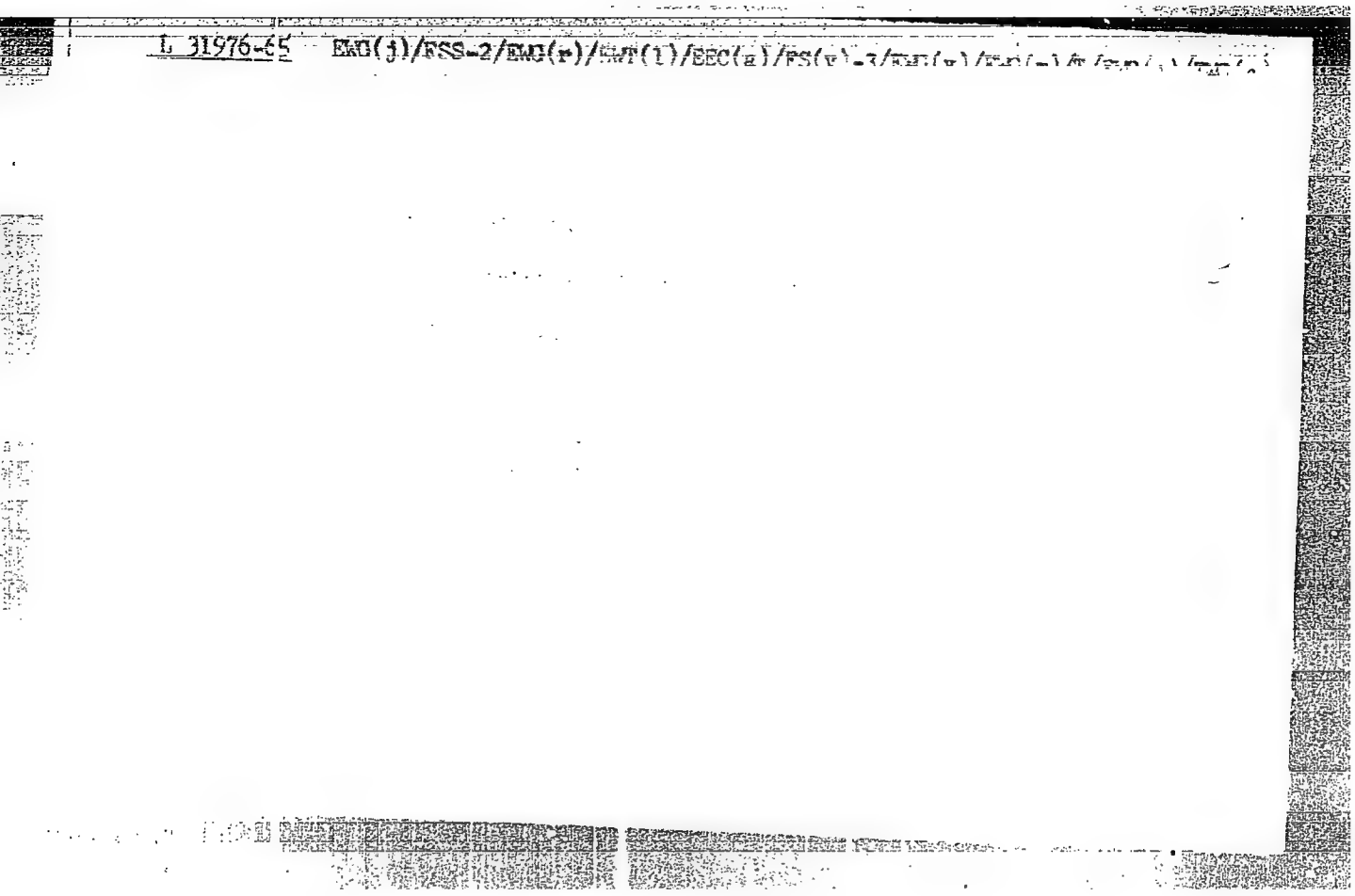
FRENK, L., inzh.

Once more on the responsibility of main engineers of a project. Avt.dor. 28 no.8:31 Ag '65.

(MIRA 18:11)

BOGOSLOVSKIY, Andrey Mikhaylovich; ZDANOVICH, Vasiliy Leont'yevich; MATVEYEV, Yevgeniy Nikolayevich; MUMZI, Georgiy Fedorovich; MSHANETSKIY, Boris Antonovich; NEBESNOV, Viktor Ivanovich; NOVIKOV, Georgiy Nikolayevich [deceased]; NUD'GA, Pavel Korneyevich; SAPRYKIN, Aleksey Petrovich; SACHKOVSKIY, Georgiy Semenovich; FRENK, M.TS., obshchiy red.; MELEYEV, A.S., red.; TIKHONOVA, Ye.A., tekhn.red.

[Textbook for engineers on marine internal combustion engines] Uchebnoe posobie dlia mekhanika III razriada po sudovym dvigateliam vnutrennego sgoraniia. Izd.2., perer. Pod obshchei red. M.TS.Frenka. Moskva, Izd-vo "Morskoi transport," 1959. 711 p. (Marine engineering) (MIRA 12:9)



L 61700-65 EWG(r)/EPF(c)/EWT(l)/EWT(m)/EWG(m)/T-2 Pz-6/Pr-4 DJ

ACCESSION NR: AP5017883

UR/[illegible]

[illegible]ress-v, I. Ya., Antokhin, G. [illegible], Aller, M. V.,

TITLE: Turbocooler. Class 46, No. 153488

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 11, 1965, 165

TOPIC TAGS: aircraft air conditioning, flight suit, air conditioner, turbocooler

ABSTRACT: This Author Certificate introduces a turbocooler for air-conditioning aircraft cabins and flying suits. The cooler consists of an axial compressor and a turbine mounted on the same shaft. To provide adequate lubrication in the whole range of speeds, the lubricant is supplied by means of wicks and [illegible] tubes.

ASSOCIATION: none [AC]

SUBMITTED: 25Apr62 ENCL: 00 SUB CODE: AC, PH

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4037

Card 1/1

AP5007513

AUTHOR: Sokolov, G. I.; Frenk, M. Ts.; Ilupina, N. A.; Adler, M. V.; Lovchev, [illegible]; Lopavok, V. S.

TITLE: Turborefrigerator for cabin air conditioning systems in large passenger aircraft Class 62, No. 153845

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 4, 1965, 121

TOPIC TAGS: passenger aircraft, air conditioning equipment

ABSTRACT: This Author Certificate presents a turborefrigerator consisting of a turbine and compressor, for cabin air conditioning [illegible] with an oil turbopump mounted [illegible] which is located below the turbine unit. [illegible] pressed air withdrawn from the inlet [illegible] vided with throttles controlling the oil flow. The pump is connected with the oil feed channels to the bearings and the annular cooling [illegible] of the bearings.

ASSOCIATION: none

Card 1/2

ACC NR: AP6035941 SOURCE CODE: UR/0413/66/000/020/0199/0199

INVENTOR: Adler, M. V.; Gorbachev, L. M.; Lapavok, V. S.; Lovchev, S. V.; Sokolov, G. I.; Frenk, M. Ts.; Churikov, Ye. P.

ORG: none

TITLE: Ventilating unit for aircraft. Class 62, No. 187540

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 199

TOPIC TAGS: aircraft cabin environment, aircraft cabin equipment, centrifugal blower, air conditioning equipment

ABSTRACT: An Author Certificate has been issued for a ventilating unit for aircraft which contains a fan with a drive. To assure the unit's efficient operation in ground-based and airborne applications, the fan is mounted on a separate shaft and is operated by an electric drive through an axial over-riding clutch; a centrifugal clutch is used for operation on turbine drive. [WA-98]

SUB CODE: 01, 13/ SUBM DATE: 10Feb64

Card 1/1 UDC: 629.13.01/06

ACC NR: AP7005598 SOURCE CODE: UR/0413/67/000/002/0029/0029

INVENTOR: Adler, M. V.; Churikov, Ye. P.; Frenk, M. Ts.

ORG: None

TITLE: A turbocooler for air conditioning systems. Class 17, No. 190376

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1967, 29

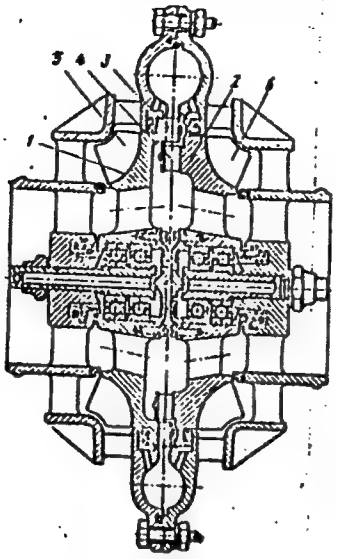
TOPIC TAGS: air conditioning equipment, turbine blade, cooling

ABSTRACT: This Author's Certificate introduces a turbocooler for air conditioning systems. The installation contains a sectional housing with guide vane assembly in the plane of symmetry and cantilever axles with discs mounted on them. The operational reliability of the unit is increased without loss of efficiency by reducing the rotational speed. The discs have turbine-type working blades located radially one after the other in the plane of symmetry of the housing at an angle which produces opposing rotation. Deceleration blades are mounted on the external sides of the discs.

Card 1/2

UDC: 621.572/576.629.13.01/06

ACC NR: AP7005598



1 and 2—rotor discs; 3 and 4—turbine blades; 5 and 6—deceler[illegible] blades

SUB CODE: 13/ SUBM DATE: 22May65

Card 2/2

TOCHILIN, S.; AVERKIN, A.; FRENKEL', A.

At the March exhibitions and fairs. Vnesh. torg. 41 no. 3:24-26 '61. (MIRA 14:2)

(Leipzig--Germany--Exhibitions)
(Utrecht, Netherlands--Exhibitions)
(Cairo--Agriculture--Exhibitions)

KARELI, L.; SARYCHEV, N., inzh.; FRENKEL', A.

Erection of bridge footings on high pile grillage foundations.
Prom.stroi.i inzh.soor. 4 no.2:22-29 Mr-Ap '62. (MIRA 15:11)
(Nikolaev--Bridges--Foundations and piers)

FRENKEL', A., inzh.

Test motortrucks on Siberian highways. Avt. transp. 36 no.5:30 My '58. (MIRA 11:6)

(Siberia--Motortrucks--Testing)

FRENKEL, Aleksandra; KASPERLIK, Anna

Leukocytic immunology in the Clinic of Internal Diseases. Polski Tygod. lek. 16 no.7:265-268 13 F '61.

1. Z Oddzialu Chorob Wewnetrznych Instytutu Gruzlicy w Warszawie; kierownik: prof. dr med. Walenty Hartwig.

(LEUKOCYTES) (ANTIGEN ANTIBODY REACTION)

FRENKEL

MIGDALSKA, Zofia; FRENKEL, Aleksandra

A Case of Di Guglielmo disease. Polskie arch. med. wewn. 24 no.6: 1071-1078 1954.

1. Z I kliniki chorob wewn. Akademii Medycznej w Warszawie; kierownik: prof. dr. med. A.Biernacki

(POLYCYTHEMIA VERA
erythremic myelosis, pathol.)

FRENKEL', A.

Selection of invariant variables for the amplitudes of processes involving particle production. Zhur. eksp. i teor. fiz. 47 no.1:220-223 Jl '64. (MIRA 17:9)

1. Sotrudnik TSentral'nogo nauchno-issledovatel'skogo instituta fiziki Vengerskoy akademii nauk, Budapesht.

B.2410

S/627/60/002/000/025/027
D299/D304

AUTHORS: Fenivesh, E., Frenkel', A., Telbits, F., Pernegr, Ya., Petrzhilka, V., Sedlak, Ya., and Vrana, I.

TITLE: Investigating high-energy electron-photon cascade in emulsions

SOURCE: International Conference on Cosmic Radiation. Moscow, 1959. Trudy. v. 2. Shirokiye atmosfernyye livni i kaskadnyye protsessy, 307-310

TEXT: The energy spectrum of the primary photon was determined; the energy spectrum of pairs formed at depths of up to 1.5 units was studied. The obtained spectra were compared with the distribution based on Bethe-Heitler's theory, and with that based on Migdal's formulas (a further development of the Landau approximation). The energy E_o of the primary photon was determined by the Chudakov-Perkins effect, by the longitudinal and lateral shower development, and also by Pinkau's method. The values for the primary energy,

Card 1/ 3

obtained by shower development in the approximations A and B, were underrated. A more accurate energy estimate is obtained by means of the curves of A. A. Varfolomeyev and I. A. Svetlolobov (Ref. 11: ZhETF, 36, 1771, 1959). The data of Ref. 11 yielded a higher value for the primary energy. In the following, a primary energy of $2 \cdot 10^{12}$ ev. is assumed. The energy of electron pairs was determined either by E. Lohrmann's method (Ref. 15: Nuovo Cim., 2, 1029, 1955) or by measuring multiple scattering. In some cases both methods were used. The results are shown in a table and in 2 figures which also exhibit (for comparison) two theoretical curves corresponding to Bethe-Heitler's and Migdal's formulas, respectively. The authors conclude that by studying only one or a few cascades, no definite decision can be made as to the validity of either Bethe-Heitler's or Landau-Migdal's theory. In this light, the present investigation should be considered as a contribution to the general statistics of cascades, investigations of a larger number of shower cascades being required before reaching a definite conclusion. The authors express their thanks to Professors Yanoshi, Farkas and Danysh. There

are 2 figures, 2 tables and 18 references: 12 Soviet-bloc and 6 non-Soviet-bloc. The references to the English-language publications read as follows: D. H. Perkins, Phil. Mag.,46, 1146, 1955; K. Pinkau. Phil. Mag., 2, 1389, 1957; J. C. Butcher, B. A. Chartres and H. Messel. Nuc. Phys., 6, 271, 1958; J.Nishimura and K. Kamata, Prog. Theor. Phys., 7, 185, 1952.

ASSOCIATION: Tsentral'nyy issledovatel'skiy institut fiziki, otdeleniye kosmicheskikh luchey (Central Research Institute of Physics, Cosmic Ray Section, Budapest); Fizicheskiy institut Akademii nauk (Physics Institute of the Academy of Sciences, Prague)

FENYVES, Ervin; FRENKEL, Andor; PETRZILKA, V.; SEDLAK, J.; VRANA, J.

Investigation of high-energy electron-photon cascade in emulsion. Koz fiz kozl MTA 7 no.4:183-188 '59. (EEAI 9:8)

1. A Magyar Tudomanyos Akademia Kozponti Fizikai Kutato Intezete, Kozmikus Sugarzasi Osztaly (for Fenyves, Frankel and Telbisz). 2. Csehszlovak Tudomanyos Akademia Fizikai Intezete, Karoly Egyetem Muszaki es Magfizikai Fakultasa (for Pertzilka, Sedlak, Vrana)
(Electrons) (Photons) (Cascades)

BOZOKI, Gyorgy; DOMOKOS, Gabor; FENYVES, Ervin; FRENKEL, Andor; GOMBOSI, Eva; BEBEL, D.; LANIUS, K.; MEIER, H.W.

Further investigation of high-energy jet. Koz fiz kozl MTA 7 no.6: 374-377 '59. (EEAI 9:8)

1. Kozmikus Sugarzasi Laboratorium, Kozponti Fizikai Kutato Intezet, Magyar Tudomanyos Akademia (for Bozoki, Domokos, Fenyves, Frenkel, Gombosi). 2. Nemet Tudomanyos Akademia Magfizikai Intezete, Zeuthen (for Bebel, Lanius, Meier)
(Particles) (Photons) (Cascades)

FRENKEL, A.

Semi-classical description of high-energy electron scattering on heavy nuclei. Acta phys Hung 13 no.3:321-331 '61.

1. Central Research Institute for Physics, Cosmic Ray Laboratory, Budapest. Presented by Lajos Janossy.

FRENKEL, Andor

Remarks about the phenomenological investigation of $\pi\pi$ interaction. Koz fiz kozl MTA 9 no.3:107-111 '61.

1. Kozmikus Sugarzasi Laboratorium

FRENKEL, Andor; TELBISZ, Ferenc

The European Center for Nuclear Physical Research. Fiz szemle 11 no.2: 62-64 F '61.

1. Kozponti Fizikai Kutato Intezet Kozmikus Sugarzasi Laboratorium.

24 (700

S/058/62/000/005/019/119
A001/A101

AUTHOR: Frenkel, Andor

TITLE: On one phenomenological method of studying pion-pion interaction

PERIODICAL: Referativnyy zhurnal, Fizika, no. 5, 1962, 41-42, abstract 5A361 ("Magyar tud. akad. Közp. fiz. kutató int. közl.", 1961, v. 9, no. 3, 107-111, III, IX, Hungarian; Russian and English summaries)

TEXT: The method for determining effective target mass proposed by Birger and Smorodin (RZhFiz, 1959, no. 11, 24419; 1960, no. 6, 13334) is described. The method was employed previously by Avunor-Ronner et al. (RZhFiz, 1961, 3B482) for studying interactions of cosmic radiation particles with Al nuclei in the energy range of about 30 Bev. Experiments were carried out by means of a Wilson chamber. Peaks near values of 1, 2 and 3μ (μ is mass of pion) were found in distribution of effective target mass. The author notes that there is no clear-cut correlation between these peaks and virtual pions of the nucleon mesonic cloud. With the aim of clarifying the role and some specific features of pion-pion interaction in processes of multiple particle production, it is proposed to conduct further experiments using bubble chambers.
[Abstracter's note: Complete translation]

Card 1/1

S/058/62/000/011/008/061
A062/A101

AUTHORS: Frenkel, A.

TITLE: Semi-classical description of high-energy electron scattering on heavy nuclei

PERIODICAL: Referativnyy zhurnal, Fizika, no. 11, 1962, 36, abstract 11B277 ("Acta phys. Acad. scient. hung.", 1961, v.13, no. 3, 321 - 331, English; summary in Russian)

TEXT: In a quasi-classical approximation a formula is obtained for the scattering phases of fast electrons on spherically-symmetric heavy nuclei. The potential distribution W (r) in the nucleus is calculated on the basis of Hoffstadter's data on the charge distribution in the nucleus; numerical values of the W (r) function for gold are given. The applicability limits of the method and the relative error in the differential cross section due to the error in the phase calculations are discussed.

[Abstracter's note: Complete translation) N. Dushin

Card 1/1

FRENKEL, Andor

Stability problem of zero mass particles. Koz fiz kozl MTA 11 no.6:439-447 '63.